[JP,10-120586,A(1998)]

Japanese (PDF)

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FULL CONTENTS CLAIM + DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE INVENTION TECHNICAL PROBLEM MEANS EXAMPLE

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FULL CONTENTS

[Claim(s)]

[Claim 1] The serine protease repressor containing a kind chosen from a mangosteen extractant, a persicae semen extractant, a van rattan extractant, an ICHIYAKUSOU extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant, or two sorts or more.

[Claim 2] A mangosteen extractant, a persicae semen extractant, a van rattan extractant, an ICHIYAKUSOU extractant, Use as a repressor of a kind or two sorts or more of serine proteases chosen from the Al Thea extractant, a

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rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant.

[Detailed Description of the Invention]
[0001]
[Industrial Application] This invention A mangosteen extractant, a persicae semen extractant, a van rattan extractant, As the repressor of a kind or two sorts or more of serine proteases chosen from an ICHIYAKUSOU extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant It is related with ******.
[0002]
[Description of the Prior Art] It is widely distributed in an animal and a plant, for example, dissociates from a cow, Buta, the pancreas of a sheep, the parotid, lymph gland, etc. as a thing of animal origin, and the serine protease repressor is separated from soybeans, wheat, corn, etc. as a thing of vegetable origin. There is a therapeutic drug (JP,H3-227941, A) to an anti-inflammatory agent (JP,H3-176499,A), clinical diagnostic (JP,H3-279859,A), acute circulation incompetence, and the internal-organs malfunction accompanying it as an example of application of a serine protease repressor.
[0003]
[Problem(s) to be Solved by the Invention] This invention offers a serine protease repressor and aims at the use expansion.
[0004]
[Means for Solving the Problem] The serine protease repressor of this invention accepts the activity during examination of the serine protease prevention activity of the plant by this invention persons, and a hybrid cell extractant, and came to complete this invention.
[0005] The serine protease repressor of this invention is obtained by the method shown below. For example, a mangosteen (testa of scientific name Garcinia mangostana etc.), A persicae semen (seed with which scientific name Prunus persica (L.) Batsch and Prunus persica (L.) Batsch var.davidiana Maxim matured), A van rattan (leaf of

scientific name Prunus persica (L.) Batsch var.platycarpa Bailey etc.), ICHIYAKUSOU (entire plant of scientific name Pyrola japonica K. etc.), Al Thea (root of scientific name Althaea officinalis etc.), A rosemary (entire plant of scientific name Rosmarinus officinalis L. etc.), Creeping saxifrage (entire plant of scientific name saxifraga stlonifera Meerb. etc.), Tilia miqueliana (leaf of scientific name Ficus relgiosa Linne etc.), They are water, ethanol, 1, and 3-butylene glycol about Hamah Melis (a leaf, a bark, etc. of scientific name Hamamelis virginiana Witch hazel), and AKABUDOU (leaf of scientific name Vitis vinifera L. etc.), independent or those solvent mixtures of water-soluble solvents, such as propylene glycol, extract in heating or ordinary temperature -- the extract -- as it is -- or it can condense and use. Moreover, you may freeze-dry extract.

[0006] The serine protease repressor of this invention can be used by 0.0001 to 10weight % of concentration as a hardening-by-drying thing. Effect sufficient by 0.0001 or less weight % of concentration is not acquired, and reinforcement of an effect is not seen by 10weight % or more of concentration, but it is uneconomical.

[0007]

[Example] Next, in order to explain this invention in detail, a work example is given, but this invention is not limited to this.

[0008] A work-example-1 mangosteen extractant, a persicae semen extractant, a van rattan extractant, While an ICHIYAKUSOU extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant add a 10-times the amount 50% ethanol aqueous solution to each raw material and sometimes shake for seven days at a room temperature After extracting, what was filtered through the filter paper was used.

[0009]

[Effect of the Invention] Next, in order to explain the effect of this invention in detail, the example of an experiment is given.

[0010] Example of experiment-1 Serine protease activity inhibitory action mangosteen extractant, The inhibition experiment to the trypsin activity of a persicae semen extractant, a van rattan extractant, an ICHIYAKUSOU

extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant was conducted. The trypsin (sigma company) was dissolved in 0.1 M Tris-HCl (pH 7.5) buffer solution, and 100U/ml enzyme solution was prepared. The water of 440microl, the subject liquid (1(w/v) % each extractant is used as a hardening-by-drying thing, and is included) of 50microl, and the enzyme solution of 10microl were added to 0.5ml of 0.1 M Tris-HCl (pH 7.5) buffer solution, and it was kept warm for 2 minutes at 30 degrees C. Next, the fluorescence intensity of AMC which added the 10 mM Boc-Phe-Ser-Arg-MCA(peptide **) DMSO solution of 10microl, added the 1ml reaction stop solution after the reaction of 1 hour, and separated was measured. The activity prevention rate was calculated from the value of the activity at the time of the addition to the activity at the time of extractant additive-free. As a result, as shown in Table 1, a mangosteen extractant, a persicae semen extractant, a van rattan extractant, an ICHIYAKUSOU extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant are the prevention effects to trypsin activity. It was shown. The prevention rate was 45.4% - 100.0%.

[0011]

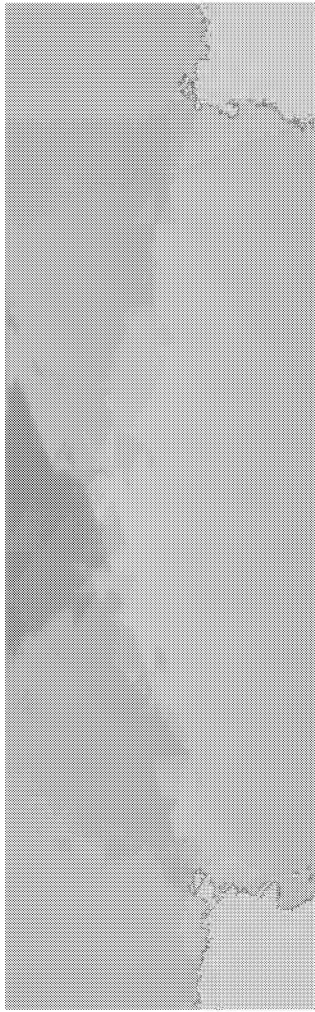
[Table 1]

Table 1 Trypsin activity inhibitory action

---------- Sample Trypsin prevention rate (%)

---------- Mangosteen extractant 79.5 persicae-semen extractant 48.1 van rattan extractant 45.4 ICHIYAKUSOU extractant 100.0 Al Thea extractant 71.3 rosemary extractant 67.6 creeping-saxifrage extractant 93.8 Tilia miqueliana extractant 85.0 Hamah Melis extractant 69.5 AKABUDOU extractant 95.4----------

[0012] Example of experiment-2 An elastase activity inhibitory action mangosteen extractant, a persicae semen extractant, The inhibition experiment to the elastase activity of a van rattan extractant, an ICHIYAKUSOU extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an



AKABUDOU extractant It carried out. The polyacrylamide gel which contains casein as a substrate was produced, and electrophoresis which made the sample 50U/ml elastase (sigma company) was performed. Then, the enzyme substrate reaction was performed at 37 degrees C in tris hydrochloric acid buffer solution this whole gel for 20 hours. Under the present circumstances, each extractant was added in buffer solution by the concentration of 0.25(w/v) %. After the end of a reaction, if protein dyeing of the gel is carried out, the activity of elastase will be detected as a band which is not dyed. This band was made a fixed quantity with the densitometer, and the activity prevention rate was calculated from the value of the activity at the time of the addition to the activity at the time of extractant additive-free. As a result, as shown in Table 2, a mangosteen extractant, a persicae semen extractant, a van rattan extractant, an ICHIYAKUSOU extractant, the Al Thea extractant, a rosemary extractant, a creeping saxifrage extractant, the Tilia miqueliana extractant, the Hamah Melis extractant, and an AKABUDOU extractant are the prevention effects to elastase activity. It was shown. The prevention rate was 50.8% - 95.0%.

[0013]

Table 2 Elastase activity inhibitory action

---------- Sample Elastase prevention rate (%)

---------- Mangosteen extractant 95.0 persicae-semen extractant 74.8 van rattan extractant 50.8 ICHIYAKUSOU extractant 61.2 Al Thea extractant 60.8 rosemary extractant 54.9 creeping-saxifrage extractant 92.9 Tilia miqueliana extractant 77.3 Hamah Melis extractant 68.1 AKABUDOU extractant 81.7----------

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